

What is claimed is:

1. An environmental data recorder for recording environmental factors acting on a plurality of micro-well plates defining micro-well plate exterior dimensions, said environmental data recorder comprising:
  - A) at least one sensor for sensing environmental factors,
  - B) a microcontroller programmed to receive and process inputs from said at least one sensor, and
  - C) a recorder housing unit for housing said at least one sensor and said microcontroller, wherein said recorder housing unit comprises exterior dimensions approximately equal to said micro-well plate exterior dimensions, permitting said environmental data recorder to be handled by a robotic device as if it were a micro-well plate.
2. The environmental data recorder as in Claim 1, wherein said at least one sensor is a temperature sensor, a humidity sensor and at least one accelerometer.
3. The environmental data recorder as in Claim 1, further comprising a battery for providing power to said microcontroller.
4. The environmental data recorder as in Claim 3, further comprising a battery charging circuit for charging said battery.
5. The environmental data recorder as in Claim 2, further comprising computer memory, wherein said microcontroller is programmed to calculate vibration based on said inputs from said accelerometer, wherein said microcontroller is programmed to record values for temperature, humidity and vibration in said computer memory.
6. The environmental data recorder as in Claim 1, wherein said environmental recorder is connected to a remote computer for data storage of said inputs received from said at least one sensor.

7. The environmental data recorder as in Claim 1, wherein said inputs are received at said microcontroller at programmed time intervals.
8. The environmental data recorder as in Claim 1, wherein said inputs are received at said microcontroller when said at least one sensor senses a programmed threshold value.
9. The environmental data recorder as in Claim 7, wherein said inputs are transmitted to said remote computer continuously.
10. The environmental data recorder as in Claim 1, further comprising at least two status lights.
11. An environmental data recorder for recording environmental factors acting on a plurality of micro-well plates defining micro-well plate exterior dimensions, said environmental data recorder comprising:
  - A) at least one sensor means for sensing environmental factors,
  - B) a microcontroller means programmed to receive and process inputs from said at least one sensor means, and
  - C) a recorder housing means for housing said at least one sensor means and said microcontroller means, wherein said recorder housing means comprises exterior dimensions approximately equal to said micro-well plate exterior dimensions, permitting said environmental data recorder to be handled by a robotic device as if it were a micro-well plate.
12. The environmental data recorder as in Claim 11, wherein said at least one sensor means is a temperature sensor, a humidity sensor and at least one accelerometer.
13. The environmental data recorder as in Claim 11, further comprising a battery means for providing power to said microcontroller means.
14. The environmental data recorder as in Claim 13, further comprising a battery charging circuit for charging said battery means.

15. The environmental data recorder as in Claim 12, further comprising computer memory, wherein said microcontroller means is programmed to calculate vibration based on said inputs from said accelerometer, wherein said microcontroller means is programmed to record values for temperature, humidity and vibration in said computer memory.
16. The environmental data recorder as in Claim 11, wherein said environmental data recorder is connected to a remote computer means for data storage of said inputs received from said at least one sensor means.
17. The environmental data recorder as in Claim 11, wherein said inputs are received at said microcontroller means at programmed time intervals.
18. The environmental data recorder as in Claim 11, wherein said inputs are received at said microcontroller means when said at least one sensor senses a programmed threshold value.
19. The environmental data recorder as in Claim 17, wherein said inputs are transmitted to said remote computer means continuously.
20. The environmental data recorder as in Claim 11, further comprising at least two status lights.
21. A method for recording environmental factors acting on a plurality of micro-well plates, each micro-well plate defining micro-well plate exterior dimensions, wherein said method comprises the steps of:
  - A) placing an environmental data recorder in close proximity to said at least one micro-well plate, said environmental data recorder comprising:
    - (1) at least one sensor for sensing environmental factors,
    - (2) a microcontroller programmed to receive and process inputs from said at least one sensor, and

- (3) a recorder housing unit for housing said at least one sensor and said microcontroller, wherein said recorder housing unit comprises exterior dimensions approximately equal to said micro-well plate exterior dimensions,
  - B) handling said at least one micro-well plate and said environmental data recorder with at least one robotic device,
  - C) receiving at said microcontroller said inputs from said at least one sensor, and
  - D) processing at said microcontroller said inputs from said at least one sensor.
22. The method as in Claim 21, wherein said at least one sensor is a temperature sensor, a humidity sensor and at least one accelerometer.
23. The method as in Claim 21, further comprising a battery for providing power to said microcontroller.
24. The method as in Claim 23, further comprising a battery charging circuit for charging said battery.
25. The method as in Claim 22, further comprising computer memory, wherein said microcontroller is programmed to calculate vibration based on said inputs from said accelerometer, wherein said microcontroller is programmed to record values for temperature, humidity and vibration in said computer memory.
26. The method as in Claim 21, wherein said environmental recorder is connected to a remote computer for data storage of said inputs received from said at least one sensor.
27. The method as in Claim 21, wherein said inputs are received at said microcontroller at programmed time intervals.
28. The method as in Claim 21, wherein said inputs are received at said microcontroller when said at least one sensor senses a programmed threshold value.

29. The method as in Claim 27, wherein said inputs are transmitted to said remote computer continuously.
30. The method as in Claim 21, further comprising at least two status lights.
31. The environmental data recorder as in Claim 1, wherein said plurality of micro-well plates defining micro-well plate exterior dimensions is a plurality of standard size micro-well plates defining standard micro-well plate exterior dimensions.
32. The environmental data recorder as in Claim 11, wherein said plurality of micro-well plates defining micro-well plate exterior dimensions is a plurality of standard size micro-well plates defining standard micro-well plate exterior dimensions.
33. The method as in Claim 21, wherein said plurality of micro-well plates, each micro-well plate defining micro-well plate exterior dimensions is a plurality of standard size micro-well plates, each micro-well plate defining standard micro-well plate exterior dimensions